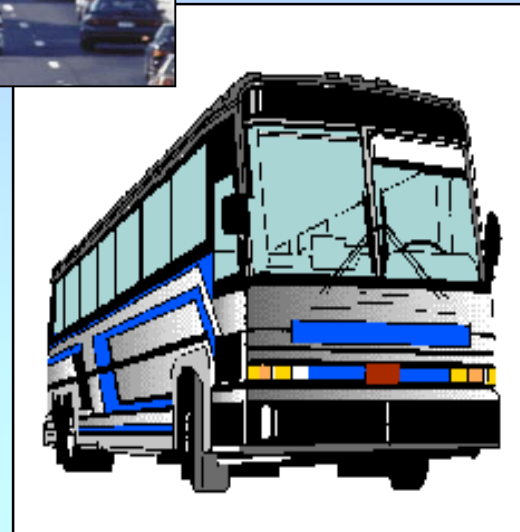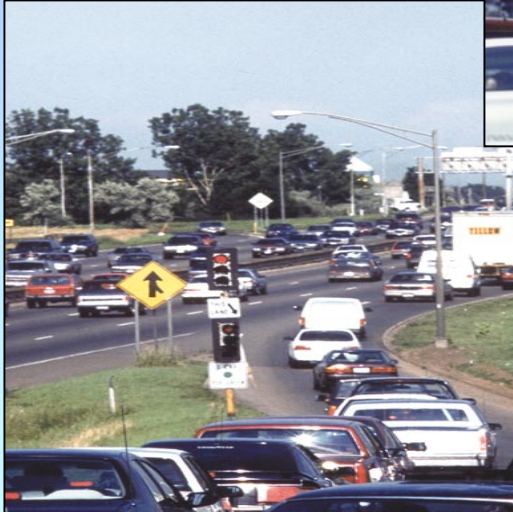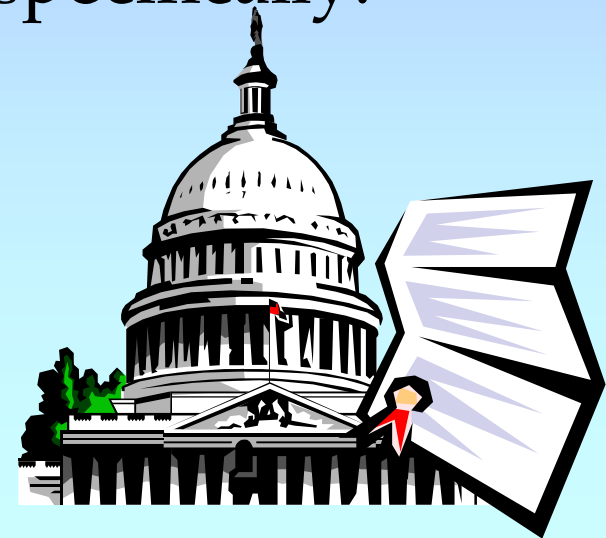# ITS Overview

Overview -1

What is ITS?

Intelligent Transportation Systems (ITS) is defined as the integrated application of advanced computer, electronics, and communications technologies to increase the safety and efficiency of surface transportation.

ISTEA and TEA-21

✦ Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) - primarily research and development of of ITS applications

✦ Transportation Equity Act for the 21st Century (TEA-21) - focus shifted to infrastructure deployment in general and specifically:

  ▸ ITS Integration Program

  ▸ Critical Standards

  ▸ ITS Architecture Conformity

  ▸ ITS Standards Conformity

ITS Goals

Advance the development and integrated deployment of ITS technologies

Specific ITS objectives (from TEA-21)

✦ Expedite deployment

✦ Include in the transportation planning process

✦ Improve regional cooperation

✦ Promote the innovative use of private resources

✦ Develop a technically competent workforce

✦ Complete deployment of Commercial Vehicle Information Systems and Networks (CVISN)

Examples of ITS Technologies

- ✦ FM subcarrier broadcasting
- ✦ Global positioning system (GPS)
- ✦ Dedicated short range communications (DSRC)
- ✦ Internet communications

Examples of ITS Services

- Traveler information
- Traffic management
- Transit management
- Transit communications/fare collection
- Electronic toll collection
- Commercial vehicle management
- Advanced vehicle safety systems

ITS: A Systems Approach

A "systems approach" connects ITS technologies and hardware and software into a meaningful network

✦ Collaboration among stakeholders

✦ Compatibility across jurisdictions

✦ Flexibility to address specific local or regional needs

Realizing the Potential of ITS

✦ The full potential of ITS is realized through a "systems architecture" that guides the deployment of ITS

✦ The National ITS Architecture is a framework that defines the functions of ITS components and how they interconnect

✦ The National ITS Architecture contains detailed requirements that guide the standards development process